## CLAIMS

1. A drug delivery infusion device comprising an injection means in fluid connection with a drug reservoir chamber and pressure-generation means coupled to both said drug reservoir and to a liquid-filled control chamber containing a drug, wherein the coupling is such that said liquid-filled control chamber for providing a drug infusion at a controlled and steady rate serves to constrain the motion of the pressure-generation means, thereby controlling a drug infusion rate, wherein said liquid-filled control chamber is associated with means for controlled depletion of the liquid therein whereby depletion of the liquid in said control chamber enables said pressure-generation means to drive a drug in said reservoir chamber therefrom for infusion thereof.

2. A drug delivery infusion device according to claim 1 wherein said liquid-filled control chamber is associated with means for generating gas from said liquid and further comprises gas-permeable walls, such that a gas generated from said liquid is released from the control chamber via said gas-permeable walls directly following its generation.

3. The infusion device of claim 1 wherein said drug is in liquid form.

4. The infusion device of claim 1 wherein the coupling between the pressure-generation means and said drug reservoir chamber and said liquid-filled control chamber is such that the amount of drug driven from the drug reservoir chamber is proportional to the rate of depletion of the liquid in the control chamber.

5. The infusion device of claim 4 wherein said coupling between the pressure-generation means and said chambers is implemented by slidable pistons, which are pushed by said pressure-generation means into said chambers.

6. The infusion device of claim 4 wherein said coupling between the pressure-generation means and said chambers is implemented by a flexible diaphragm constituting a movable wall within said chambers.

7. The infusion device of claim 1 where the drug reservoir chamber and the control chamber are coupled in parallel, wherein said coupling is connected to the pressure-generation means.

8. The infusion device of claim 1 wherein the drug reservoir chamber and the control chamber are coupled in series with said pressure-generation means.

9. The infusion device of claim 3 wherein the drug reservoir chamber is in liquid communication with means to convey the liquid drug to an injection site in the body of the recipient, such that pressure in said drug reservoir chamber causes the drug to be injected at said site.

10. The infusion device of claim 1 wherein an infusion set is an integral part of the infusion device.

11. The infusion device of claim 1 wherein an infusion set is connected to the infusion device by a tube.

12. The infusion device of claim 1 wherein the volume of liquid in the control chamber is gradually reduced by the at least partial conversion of said liquid into a gaseous phase by a gas-generation means; wherein said gaseous product exits said chamber.

13. The infusion device of claim 1 wherein the volume of liquid in the control chamber is gradually reduced by venting said liquid from the liquid chamber by a controlled method selected from the group consisting of osmotic migration, diffusion, controlled evaporation through a wick or hydrophilic wall, and mechanical flow interference utilizing a means selected form the group consisting of a labyrinth or an orifice.

14. The infusion device of claim 12 wherein said gaseous products exit from said control chamber via a gas-permeable membrane.

15. The infusion device of claim 12 wherein said gas-generation means include electrolysis, a chemical reaction, and evaporation.

16. The infusion device of claim 15 wherein the rate of said electrolysis is controlled by means selected from the group consisting of an electronic timer, a microprocessor, and a biomedical control unit.

17. The infusion device of claim 16 wherein said means is a biomedical control unit which reacts to bodily functions selected from a group consisting of a

glucose sensor, other chemical or biological sensors, body temperature, pH of body fluids, muscle contractions, electroencephalography, electrocardiography, and combinations thereof.

18. The infusion device of claim 1 wherein said device further comprises an over-pressure detection means for determining the presence of a blockage in the injection means.

Claim 19 (Canceled)

20. The infusion device of claim 18 wherein said over-pressure detection means further comprises a valve for release of said pressure.

21. The infusion device of claim 1 settable, to deliver between 0.001ml/hr to 0.35ml/hr on a continuous basis.

22. The infusion device of claim 1 further comprising a bolus-delivery means.

23. The infusion device of claim 22 wherein said bolus-delivery means can deliver a bolus between 0.001ml and 1.0ml.

24. The infusion device of claim 1 wherein the drug in the drug chamber is selected from the group consisting of peptides, proteins, hormones, analgesics, anti-migraine agents, anti-coagulant narcotic antagonists, chelating agents, anti-anginal agents, chemotherapy agents, sedatives, anti-neoplastics, protaglandins and antidiuretic agents.

25. The infusion device of claim 1 wherein said device is a disposable device.

26. The infusion device of claim 1 wherein said device comprises a permanent portion and a disposable portion.

27. The infusion device of claim 1 wherein said device is comprised of separate components including a drug cartridge, a control unit and a tube set.

Claim 28 (Canceled)